

عنوان مقاله:

Electrically conductive hydrogel composites of polyaniline nanoparticles and poly (vinyl pyrrolidone) crosslinked by γ -irradiation

محل انتشار:

دومین کنگره بین المللی علوم و فناوری نانو (سال: 1387)

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خلاصه مقاله:

Electrically conducting polymers (ECPs), and in particular polyaniline, polypyrrole, polythiophene and their derivatives, are subject of intensive research for their unique electrical, electrochemical and optical properties[1-2]. These materials are finding growing applications in a number of industrial sectors, including optoelectronics and microelectronics, bioelectronics, paints and coatings, etc. ECPs are also named 'conjugated polymers' because they are macromolecules containing a spatially extended π -bonding system, which is the reason of their intrinsic semi-conducting nature. Generally, conjugated polymers become electrically conductive by means of doping reactions [1]. Polyaniline (PANI) is one of the most promising conducting polymers due to a good combination of properties, stability, price and ease of synthesis. It exists in a variety of forms which differ in their oxidation level. Principal neutral (base) forms of PANI are depicted in Figure 1

کلمات کلیدی:

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